

#10 05 Docket No. 212/291 2-04

# IN THE UNITED STATES PATENT & TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Mollenauer, et al.

Serial No.: 09/724,325

Filed: November 28, 2000

For: Resuscitation Device

Commissioner for Patents

Alexandria, VA 22313-1450

Art Unit: 3764

Examiner: DeMille, D.

### APPEAL BRIEF

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**TECHNOLOGY CENTER R3700** 

Sir:

The following appeal brief is submitted pursuant to the Notice of Appeal dated November 19, 2003. Applicants request that the rejection of claims 1 through 30 be reversed and the claims allowed.

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Theodore D. Fray III

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#### APPEAL BRIEF

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# Real Party in Interest

The real party in interest is Revivant Corporation.

# Related Appeals and Interferences

There are no related appeals or interferences.

# Status of Claims

Claims 1 through 30 stand rejected as anticipated by Lach et al., Resuscitation Method and Apparatus, U.S. Patent 4,770,164 (Sep. 13, 1988). Claims 1 through 30 are appealed.

#### Status of Amendments

An amendment was filed on January 20, 2004 after the final rejection. The amendment corrects typographical errors in the claims. The amendment has not been entered yet.

#### Summary of Invention

The invention is a chest compression device having a belt and friction liner. Claims 1 through 30 are directed to a chest compression device having a belt for compressing the chest (Figures 1, 2, 6 and 8, Specification page 9, line 11 to page 10, line 26 and page 13 line 27 to page 14, line 2), a rotating member for constricting the belt (Figures 1, 2 4 and 5, Specification page 9, lines 11 to 15 and page 10, line 27 to page 12, line 16) and a friction liner (Figures 1, 2 and 8, Specification page 9,

line 11 to page 10, line 6 and page 16, lines 17 to 18) wherein the friction liner is adapted to be disposed between the chest and the belt and adapted to extend substantially completely around the chest (Figures 1, 2 and 8, Specification page 9, line 20 to line 29). Claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30 specify that the friction liner may be a belt, vest, corset, girdle, strap or a band (Specification page 10, lines 4 to 6). Claims 10, 11, 25 and 26 specify that the friction liner is a second belt (Figures 1, 2 and 8, Specification page 10, lines 4 to 6). Claims 16 through 30 specify that the friction liner is provided in addition to any clothes worn by the patient (Specification page 9, line 20 to line 29).

The inventions solve the previously unknown problem of sawing a patient during automated chest compressions. Applicants unexpectedly found that a belt-driven chest compression device will cut through the pectoral muscles of patients due to friction between the belt and the chest. Lach did not appreciate the problem of sawing the patient's chest since he directly states that friction was not a problem with his device. Thus, the claimed solution to the previously unknown problem of sawing is both novel and non-obvious.

#### Issues

- 1. Whether claims 1 through 30 are novel because the cited reference and the prior art fail to show a chest compression device having a friction liner adapted to extend substantially completely around the chest of the patient as claimed.
- 2. Whether claims 16 through 30 are novel because the cited reference and the prior art fail to show a chest compression device having a friction liner separate from the patient's clothing.

3. Whether claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30 are novel because the cited reference and the prior art fail to show a chest compression device having a friction liner in the form of a belt, vest, corset, girdle, strap or band as claimed.

4. Whether claims 10 through 12 and 25 through 27 are novel because the cited reference and the prior art fail to show a chest compression device having a compression belt and a friction liner in the form of a second belt.

### Grouping of Claims

The final rejection grouped claims 1 through 30 into a single rejection. The claims do not stand or fall together.

Claims 1 through 15 are directed to a chest compression device having a belt, a rotating member for constricting the belt and a friction liner adapted to extend substantially completely around the chest of a patient. The dependent claims are directed towards a low-friction material liner or to the form of the friction liner.

Claims 16 through 30 are directed to a chest compression device having a belt, a rotating member for constricting the belt and a friction liner, separate from any clothing worn by the patient, adapted to extend substantially completely around the chest of a patient. The dependent claims are directed towards a low-friction material liner or to the form of the friction liner.

Claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30 specify that the friction liner may be a belt, vest, corset, girdle, strap or band.

Claims 10 through 12 and 25 through 27 specify that the friction liner is in the form of a second belt.

#### Argument

Applicants explain below the errors in the rejection and show how the rejection of the claims fails to show all of the limitations of the claims. Claims 1 through 30 are novel over the cited reference.

#### Relevant Law

Claims 1 through 30 are rejected as anticipated under 35 U.S.C. § 102(b), which states, "A person shall be entitled to a patent unless...(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States...." To anticipate a claim, a reference must disclose every element of the challenged claim. Lindemann Maschinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1457 (Fed. Cir. 1984). In addition, "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." Rosco Inc. v. Mirror Lite Co., 304 F.3d 1373, 1380 (Fed. Cir. 2002).

Issue 1: Whether claims 1 through 30 are novel because the cited reference and the prior art fail to show a chest compression device having a friction liner adapted to extend substantially completely around the chest of the patient as claimed.

### Limitations not Found in the Prior Art

Lach et al., <u>Resuscitation Method and Apparatus</u>, U.S. Patent 4,770,164 (Sep. 13, 1988), the only reference cited by the Office Action, does not show a chest compression device having a friction liner adapted to extend substantially completely around the chest. Lach does not inherently show this limitation since nothing in Lach shows or suggests that the limitation is necessarily present.

Since Lach does not disclose or inherently show this limitation, Lach does not anticipate claims 1 through 30.

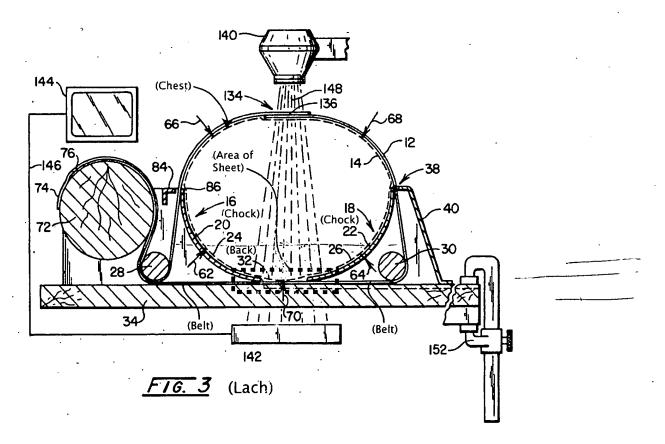
# Errors in the Rejection

In the first office action, dated September 12, 2002, the Examiner asserted that the shirt worn by the patient in Figure 1 comprehends a friction liner made of a low-friction material. In the second office action, dated May 20, 2003, the Examiner failed to address Applicants' arguments showing that the assertion is incorrect and instead asserted that Lach shows a thin sheet of polytetrafluoroethylene resin plastic between the patient and the base (item 34) of Lach's device.

As pointed out in Applicants' office action response dated March 12, 2003, the shirt shown in Lach is not a friction liner. Lach does not mention that the shirt is a friction liner and never mentions the shirt at all. Thus, the shirt is mere ornamentation in figure 1 and does not show a friction liner. Furthermore, no logical basis exists for asserting that the shirt necessarily acts as a friction liner. Lach states that there is no problem with friction in his device. Lach, Column 6, lines 44 through 61. Thus, no one would assume that the shirt is a friction liner. addition, most shirts are made of cotton, wool or flannel, which would exacerbate the problem of friction between the compression belt and the patient. A typical shirt would be cut as the belt slid across the shirt multiple times, leaving the patient's skin exposed to the sawing action of the belt. Even if the shirt were hypothesized to be made of a low-friction material, there is no reason to believe that the shirt is necessarily a friction liner. Finally, common sense dictates that the shirt is part of another device, not the compression device. Thus, no one would believe that the shirt shown in Figure 1 of Lach anticipates Applicants' claimed friction liner.

With regard to the Examiner's assertion that Lach shows a friction liner sheet between the patient (items 10 and 14 in Lach)

and the belt (item 12 in Lach), the Examiner ignores limitations of the claims. Lach's sheet is not disposed between the patient's chest and the belt as claimed. Lach's sheet is not adapted to extend substantially completely around the chest of the patient as claimed. Instead, Lach places a thin sheet between the patient's back and the belt and between the chocks (contoured portions 20 and 22) used to squeeze the sides of the thorax. Lach, Column 6, lines 57 through 61. Thus, the sheet is disposed between contoured portions 20 and 22 and lies on the chocks, with the patient laying on the sheet. Lach does not show the sheet in his figures, though from the description, one can discern that the sheet is disposed as shown in the figure below (the figure is taken from figure 3 of Lach and edited by as shown for purposes of this appeal).



Though unnecessary, Lach's polytetrafluoroethylene sheet may be disposed between the belt (12) and the patient's back (32) and

between and above the chocks (contoured portions 20 and 22) in the general area bounded by dashed box. However, the sheet is not disposed between the belt and the patient's chest. Lach only shows the sheet disposed as shown and Lach is explicit that the PTFE sheet reduces friction against the rear portion of the thorax. Therefore, the sheet is not adapted to extend substantially completely around the patient's chest as claimed.

Since the shirt shown in figure 1 of Lach is not a friction liner and since Lach does not show a friction liner between the belt and the chest of the patient or a friction liner adapted to extend substantially completely around the patient's chest, Lach does not anticipate claims 1 through 30. As demonstrated above, the Examiner's assertions to the contrary are incorrect.

Issue 2: Whether claims 16 through 30 are novel because the cited reference and the prior art fail to show a chest compression device having a friction liner separate from the patient's clothing.

#### Limitations not Found in the Prior Art

Claims 16 through 30 claim a chest compression device having a friction liner that is adapted to extend substantially completely around the chest. As described above, this limitation is not shown by Lach et al., Resuscitation Method and Apparatus, U.S. Patent 4,770,164 (Sep. 13, 1988). Thus, claims 16 through 30 are novel over Lach.

Claims 16 through 30 also contain the limitation that the friction liner is provided in addition to any clothing worn by the patient. This limitation removes any possibility that the shirt shown in Lach may be considered a friction liner as asserted by the Examiner. Thus, claims 16 through 30 are novel over Lach.

### Errors in the Rejection

The rejection of claims 16 through 30 is predicated on the assertion that the shirt shown in Lach is a friction liner. Claims 16 through 30 specify that the friction liner is provided in addition to any clothing worn by the patient. In the second office action, the Examiner ignored the limitation that the friction liner is provided in addition to the patient's clothing. Thus, the Examiner failed to state an anticipation rejection against claims 16 through 30.

Claims 16 through 30 are independently patentable because they contain the further limitation that the friction liner is provided in addition to the patient's clothing. Applicants point out that these claims remove any possibility that the shirt shown in Figure 1 of Lach could be interpreted to be a friction liner. Thus, in the light that Lach does not show a friction liner that extends over the patient's chest or substantially completely around the patient's chest, the additional limitations render claims 16 through 30 independently patentable.

Issue 3: Whether claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30 are novel because the cited reference and the prior art fail to show a chest compression device having a friction liner in the form of a belt, vest, corset, girdle, strap or band as claimed.

#### Limitations not Found in the Prior Art

Lach et al., <u>Resuscitation Method and Apparatus</u>, U.S. Patent 4,770,164 (Sep. 13, 1988), the only reference cited by the Office Action, does not show a chest compression device having a friction liner in the form of a belt, vest, corset, girdle, strap or band as claimed. Lach does not inherently show this limitation since nothing in Lach shows or suggests that the limitation is necessarily present. Since Lach does not disclose or inherently show this limitation, Lach does not anticipate claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30.

### Errors in the Rejection

The Examiner ignored the limitations of claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30. Thus, the Examiner failed to state an anticipation rejection of claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30.

Furthermore, Lach does not show that the friction liner may be a belt, vest, corset, girdle, strap or a band. Lach only describes a thin sheet disposed between the belt and the patient's back in the area between the two chocks. There is no basis to conclude that any one of these types of friction liners are necessarily shown in Lach. Thus, Lach does not anticipate claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30. In addition, because Lach does not show the additional limitations of these claims, claims 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30 are independently patentable.

Issue 4: Whether claims 10 through 12 and 25 through 27 are novel because the cited reference and the prior art fail to show a chest compression device having a compression belt and a friction liner in the form of a second belt.

#### Limitations not Found in the Prior Art

Claims 10 through 12 and 25 through 27 provide that the friction liner is provided in the form of a second belt. Lach does not disclose or inherently show this limitation in any way. Thus, Lach does not anticipate these claims.

# Errors in the Rejection

The Examiner ignores the limitation that the friction liner is provided in the form of a second belt. Thus, the Examiner has failed to state an anticipation rejection of claims 10 through 12 and 25 through 27.

In addition, because Lach does not show the additional limitations of claims 10 through 12 and 25 through 27, these claims are independently patentable.

# Additional Errors in the Reasoning Supporting the Rejections

As shown above, claims 1 through 30 are novel over Lach, contrary to the Examiner's assertions otherwise. In support of the rejections, the Examiner that states that:

Lach teaches the convention of providing a friction liner when it is desired dependent on practical considerations of a particular patient. Larger patients would have larger amounts of deflection and greater propensity of creating friction on the thorax of the patient and may need the additional friction liner.

While Lach may teach that it is unnecessary to provide such a liner it is still conventional to provide one whenever desired or required. The only difference between the claimed invention and Lach is the provision of using a liner but Lach teaches that it still may be necessary. There doesn't appear to be an inventive step to positively include a friction liner with a conventional chest compression device when it is well known to the artisan of ordinary skill to provide one when desired or required. Lach may have reduced the problem however, Lach still recognizes that there may be circumstances where it still might be necessary.

Applicants point out that these statements are irrelevant to the issue of whether Lach anticipates the claimed inventions. The issues are as stated and can be summarized as whether Lach shows all of the claimed limitations. The quoted statements are irrelevant to this inquiry since they do not address whether Lach either explicitly or inherently shows the claimed limitations. Thus, the statements add nothing to the anticipation rejection. Since Lach does not explicitly or inherently show the claimed limitations, claims 1 through 30 are novel over Lach.

Furthermore, the assertion that Lach teaches a convention of providing a friction liner is erroneous since there is no

convention in the art of chest compression devices that use a belt to compress the chest. The only known conventions in the art of performing chest compressions are the guidelines published by the American Heart Association in 2000, which are solely directed to manual CPR. To Applicants' knowledge, no device shown by Lach has been sold and there is no market for chest compression devices that use a belt to compress the chest, other than the market created by Applicants' devices. Likewise, the American Heart Association provides no guidance regarding the use of friction liners in chest compression devices. No prior reference known to Applicants shows the friction liner as claimed. Only the Examiner states that there is such a convention. The Examiner has failed to demonstrate, and cannot demonstrate, that Lach shows a friction liner as claimed or that Lach reflects or establishes a convention. Thus, it is impossible for the Examiner to show that the friction liner as claimed is somehow conventional in the art of belt-driven chest compression devices. Moreover, until beltdriven devices are accepted by the AHA, by others skilled in the art or by the market, there is no basis to assert that there is any convention with regard to belt-driven chest compression In addition, because Lach teaches that it is unnecessary to use a friction liner, one of ordinary skill would assume that there is no convention regarding the use of friction liners. Thus, the Examiner's assertion to the contrary is incorrect.

The Examiner's assertion that there is no inventive step to include a friction liner is also both erroneous and irrelevant. Whether or not the claims show an "inventive step" is irrelevant to the legally required inquiry. There is no "inventive step" criterion in American law. The only issues are whether Lach explicitly or inherently teaches the claimed limitations. Because Lach does not do so, Lach does not anticipate claims 1 through 30.

The assertion that there is no inventive step is also erroneous. Lach teaches that friction liners are unnecessary and never discloses friction liners that extend over substantially the

entire chest of the patient. Applicants, however, have discovered that friction poses a substantial problem in belt-driven devices. Applicants discovered that without a friction liner a belt-driven CPR device will literally saw through a patient's skin and muscles in the time it would take to transport the patient from the scene of the heart attack to a hospital. The friction also causes unnecessary and excessive power consumption, thus requiring unwieldy generators or large batteries to operate the device. Applicants' claimed devices solve these problems, which Lach explicitly proves were unrecognized by the prior art. Furthermore, no one of ordinary skill would be motivated to modify the sheet disclosed in Lach to meet the claimed limitations because the problem was unknown at the time Lach issued. further light of Lach's statement that a PTFE sheet is unnecessary, one would simply overlook the brief, insufficient disclosure regarding a PTFE sheet. Accordingly, the Examiner's assertion that the claims lack an inventive step is erroneous.

The Examiner also asserts that Lach recognizes that there are circumstances in which a low-friction sheet may be necessary. This speculative assertion is created by the Examiner and is directly contrary to Lach's teachings. Lach states that a friction liner is "at present unnecessary." Lach does not state that there are circumstances when it is necessary.

The Examiner's assertion that large patients have a greater propensity of creating friction due to larger deflection is also speculative and contrary to Lach's teachings. Lach never mentions that large patients may create a larger amount of friction, thereby requiring a friction liner. Instead, Lach states that friction is not a problem. In the light that Lach addressed other issues that large patients may face when treated with his device, the Examiner's assertion to the contrary is both fabricated and erroneous. The assertion also adds nothing to the rejection of the claims.

# Conclusion

This appeal brief meets the requirements of 37 C.F.R. § 1.192. Applicants request that the rejection of the claims be reversed and that the claims be allowed.

By:

Date: January 20, 2004

Theodore D. Fray III

K. David Crockett, Esq. Reg. No. 34311



# IN THE UNITED STATES PATENT & TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Mollenauer, et al.

Serial No.: 09/724,325

Filed: November 28, 2000

For: Resuscitation Device

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Art Unit: 3764 IAN 3 0 2004

TECHNOLOGY CENTER R3700

Examiner: DeMille, D.

#### APPENDIX OF CLAIMS

The following claims are a copy of the currently pending claims.

- 1. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner permitting the belt to slide freely over said friction liner.
- 2. The chest compression device of claim 1 wherein said friction liner is composed of a low-friction material.

3. The chest compression device of claim 1 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.

- 4. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner is not attached to the belt such that the belt is free to slide over said friction liner.
- 5. The chest compression device of claim 4 wherein said friction liner is composed of a low-friction material.
- 6. The chest compression device of claim 4 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band a friction liner belt.
- 7. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner being separate from the belt.

8. The chest compression device of claim 7 wherein said friction liner is composed of a low-friction material.

- 9. The chest compression device of claim 7 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.
- 10. A chest compression device comprising:
  - a first belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the first belt to constrict the belt about the chest; and
  - a friction liner in the form of a second belt, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, wherein said friction liner is not operatively connected to the rotating member.
- 11. The chest compression device of claim 10 wherein said friction liner is composed of a low-friction material.
- 12. The chest compression device of claim 10 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.
- 13. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and

- a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human;
- wherein said friction liner provides a substantially stationary surface for the compression belt to slide over as the belt is constricted about the chest by the rotating member.
- 14. The chest compression device of claim 13 wherein said friction liner is composed of a low-friction material.
- 15. The chest compression device of claim 13 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.
- 16. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner permitting the belt to slide freely over said friction liner.
- 17. The chest compression device of claim 16 wherein said friction liner is composed of a low-friction material.

18. The chest compression device of claim 16 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.

- 19. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner is not attached to the belt such that the belt is free to slide over said friction liner.
- 20. The chest compression device of claim 19 wherein said friction liner is composed of a low-friction material.
- 21. The chest compression device of claim 19 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band a friction liner belt.
- 22. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed

between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner being separate from the belt.

- 23. The chest compression device of claim 22 wherein said friction liner is composed of a low-friction material.
- 24. The chest compression device of claim 22 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.
- 25. A chest compression device comprising:
  - a first belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the first belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner in the form of a second belt, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, wherein said friction liner is not operatively connected to the rotating member.
- 26. The chest compression device of claim 25 wherein said friction liner is composed of a low-friction material.
- 27. The chest compression device of claim 25 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.
- 28. A chest compression device comprising:

- a belt which is adapted to extend at least partially around the chest of a human;
- a rotating member operatively connected to the belt to constrict the belt about the chest; and
- a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human;
- wherein said friction liner provides a substantially stationary surface for the compression belt to slide over as the belt is constricted about the chest by the rotating member.
- 29. The chest compression device of claim 28 wherein said friction liner is composed of a low-friction material.
- 30. The chest compression device of claim 28 wherein said friction liner is selected from the group comprised of a belt, a vest, a corset, a girdle, a strap and a band.

The following claims are a copy of the claims as amended by the after-final amendment filed January 20, 2004. The after-final amendment has not been entered as of January 20, 2004.

- A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner permitting the belt to slide freely over said friction liner.
- 2. The chest compression device of claim 1 wherein said friction liner is composed of a low-friction material.
- 3. The chest compression device of claim 1 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 4. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the

human, said friction liner is not attached to the belt such that the belt is free to slide over said friction liner.

- 5. The chest compression device of claim 4 wherein said friction liner is composed of a low-friction material.
- 6. The chest compression device of claim 4 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 7. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner being separate from the belt.
- 8. The chest compression device of claim 7 wherein said friction liner is composed of a low-friction material.
- 9. The chest compression device of claim 7 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 10. A chest compression device comprising:
  - a first belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the first belt to constrict the belt about the chest; and

a friction liner in the form of a second belt, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, wherein said friction liner is not operatively connected to the rotating member.

- 11. The chest compression device of claim 10 wherein said friction liner is composed of a low-friction material.
- 12. The chest compression device of claim 10 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 13. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human;
  - wherein said friction liner provides a substantially stationary surface for the compression belt to slide over as the belt is constricted about the chest by the rotating member.
- 14. The chest compression device of claim 13 wherein said friction liner is composed of a low-friction material.

15. The chest compression device of claim 13 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.

- 16. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner permitting the belt to slide freely over said friction liner.
- 17. The chest compression device of claim 16 wherein said friction liner is composed of a low-friction material.
- 18. The chest compression device of claim 16 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 19. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed between the belt and the chest of the human when the belt

is extended around the chest of the human, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner is not attached to the belt such that the belt is free to slide over said friction liner.

- 20. The chest compression device of claim 19 wherein said friction liner is composed of a low-friction material.
- 21. The chest compression device of claim 19 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 22. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, said friction liner being separate from the belt.
- 23. The chest compression device of claim 22 wherein said friction liner is composed of a low-friction material.
- 24. The chest compression device of claim 22 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 25. A chest compression device comprising:

a first belt which is adapted to extend at least partially around the chest of a human;

- a rotating member operatively connected to the first belt to constrict the belt about the chest; and
- a friction liner provided in addition to any clothing worn by the human, said friction liner in the form of a second belt, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human, wherein said friction liner is not operatively connected to the rotating member.
- 26. The chest compression device of claim 25 wherein said friction liner is composed of a low-friction material.
- 27. The chest compression device of claim 25 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.
- 28. A chest compression device comprising:
  - a belt which is adapted to extend at least partially around the chest of a human;
  - a rotating member operatively connected to the belt to constrict the belt about the chest; and
  - a friction liner provided in addition to any clothing worn by the human, said friction liner adapted to be disposed between the belt and the chest of the human when the belt is extended around the chest of the patient, said friction liner being adapted to extend substantially completely around the chest of the human;

- wherein said friction liner provides a substantially stationary surface for the compression belt to slide over as the belt is constricted about the chest by the rotating member.
- 29. The chest compression device of claim 28 wherein said friction liner is composed of a low-friction material.
- 30. The chest compression device of claim 28 wherein said friction liner is selected from the group consisting of a belt, a vest, a corset, a girdle, a strap and a band.

# IN THE UNITED STATES PATENT & TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Mollenauer, et al.

Serial No.: 09/724,325

Filed: November 28, 2000

For: Resuscitation Device

Art Unit: 3764

Examiner: DeMille, D.

#### PAYMENT OF ADDITIONAL FEES

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

A fee of \$165 is due for filing this appeal brief (37 CFR 1.17(c)).

The Commissioner is hereby authorized to charge payment of the fees associated with this communication, any deficiency in the fee paid, or credit any overpayment, to Deposit Account 03-3700.

Date: January 20, 2004

By:

K. David Crockett, Esq.

Theodore D. Fray III

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